

SEQUENCE LISTING

SEQ ID 1

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SEQ ID 2

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SEQ ID 3

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SEQ ID 4

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SEQ ID 5

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SEQ ID 6

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SEQ ID 7

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SEQ ID 8

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SEQ ID 9

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SEQ ID 10

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SEQ ID 11

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SEQ ID 12

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SEQ ID 13

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SEQ ID 14

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SEQ ID 15

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SEQ ID 16

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SEQ ID 17

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SEQ ID 18

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GTGCTGTGTAG

SEQ ID 19

MLTDLRAVNAVIQPMGLPQLPSPAMIPKDWPLI IIDLKDCFFTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPGMNLNSPTICQTFVGRALQ
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6/25

LDQIATLIGQTRLRIIKLCGNDDPKIVVPLTKEQVRQAFINSQAWKIGLANFVGIIIDNHYPKTKIFQFLKLTWILPKITRREPLENALTVFTDGSS
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SEQ ID 20

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VSV

SEQ ID 21

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SEQ ID 22

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SEQ ID 23

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SEQ ID 24

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GTGATTATGGGATTAATTGCAGTCACAGCTACGGCTGCTGTGGCAGGAGTTGCATTGCACCTCTCTGTTTCAGTCGGTAACTTTGTTAATGATTGGC
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AGACAGACTCATGAGCTTAGAACATTGTTCCAGTTACAGTGTGACTGGAATACGTGAGATTTTGTATTACACCCCAAATTTATAATGAGTCTGAG
CATCACTGGGACATGTTAGAGCCATCTACAGGGAAGAGAGATAATCTCACTTTAGACATTTCCAAATTAATAAACAATTTTGAAGCATCAA
AAGCCCATTTAAATTTGATGCCAGGAACAGGCAATTGCAGGAGTTGCTGATGGCTCGCAATCTTAACCTGTCACTTGGGTTAAGACCATCGG
AAGTACTATGATTATAAATCTCATATTAATCCTTGTGTGCTGTTTTGTCTGTTGTTAGTCTGCAGGTGTACCAACAGCTCCGAAGAGACAGCGAC
CATCGAGAACGGGCCA

SEQ ID 25

ATGGGGCTCTCCAACCCGGGTGGCCTCTCCGGCCATGATCCAAAAGATTGGCCTTTAATTATAATTGATCTAAAGGATTGCTTTTTTACCATCC
CTCTGGCAGAGCAGGATTGTGAAAATTTGCCCTTACTATACCAGCCATAAATAAAGAACAGCCACCAGGTTTCACTGGAAGGTGTTACCTCA
GGGAATGCTTAAATAGTCCAATATTGTGAGCTTTTGTAGGTCGAGCTCTTCAACCAGTGAGAGAAAAGTTTTAGACTGTTATATTATTCATTAT
ATTGATGATATTTATGTGCTGCAGAAACGAAAGATAAATTAATTGACTGTTATACATTTCTGCAAGCAGAGGTTGCCAATGCTGGACTGGCAATAG
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CACATTAAAAACATAAATGATTTTCAAAAATTACTAGGAGATATTAATTCGATTTCGGCCAACTTAGGCATTTCTACTTATGCCATGTCAAATTTG
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TCTTGTGGAGTGGTCATTCTTCTCACAGTACAGTTAAGACTTTTACATTGTAATTGGATCAAAATAGTACATTAATCGGTGACACAAGATTACGA
ATAACAAAATTTATGTGGAATGACCCAGACAAAATAGTTGTCCCTTTAACCAAGGAACAAGTTAGACAAGCCTTTATCAATTTGCTGATGGCAGA
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TACCAGACGTGAACCTTTAGAAAATGCTCTAACAGTATTACTGATGGTCCAGCAATGGAAGAGCAGCTTACACAGGGCCGAAGAACGAGTAATC
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TGTAAGAAAAAGAAATTTCCCATTTTATATTACTTATATTCGAGCACACACTAATTTACCAGGGCCTTTGACTAAAGCAAATGAACAAGCTGACTTA
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GCACTCTATACTTTAAATTTTTTAAACATTTATAGAAATCAGACTACTTCTGTCAGAACACATCTTACTGGTAAAAAGAACAGCCACATGAAG
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AAGAATGTGTGGCAATAGTGGGTGATATTATAAAACAATGAATTTGGAATATTATAGATTGGGCACCTCGAGGTCAATTCTACCACAATTGCTC
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CCATTGGAAGTACATCGATTATAAATCTCATATTAATCCTTGTGTGCTGTTTGTCTGTTGTAGTCTGCAGGTGTACCAACAGCTCCGAAGAGA
CAGCGACCATCGAGAAGGGCCATGATGACGATGGCGGTTTTGTGCAAAAGAAAAGGGGAAATGTGGGGAAAAGCAAGAGAGATCAAATTTGTACT
GTGCTGTGTAG

SEQ ID 26

MQRKAPRRRRHRNRAPLTHKMNKMTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTTQTPESMLLAALMIVSMVSLPMPAGAAAANYT
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MSLRPRVNYLQDFSYQRLKFRPKGKPCPEIKPESKNTFVLWEECVANSVILQNNFEGTIIIDWAPRGQFYHNCSSGQTQSCQSAQVSPAVIDSLT
ESLDKHKHKKLQSFYPWEWGEKISTPRPKIVSPVSGPEHPELWRLTVASHHRIWWSGNQLETRDRKPFYITIDLNSSLTVPLQSCVKPPYMLVVG
IVIKPDSQITTCENRLLTICIDSTFNWQHRILLVRAREGVWIPVSMRDPWEASPSVHILTEVLKGVNLRSKRIFITLIIVIMGLIAVTATAAVAGVA
LHSSVQSVNFVNDWQKNSTRLWNSQSSIDQKLANQINDLRQTVIWMGDRMLSLEHFRQLQCDWNTSDFCITPQIYNESEHWDMMVRRLHQRGREDNLT
LDISKLEQIFEASKAHLNLVPGTEAIAGVADGLANLNPVTWVKTI GSTTIIINLILVCLFCLLLVCRCTQQLRRDSHRRERAMMTMAVLSKRKGG
NVGKSKRDQIVTVSV

SEQ ID 27

MGPLQPLPSPAMIPKDWPLIIIDLKDCFFTIPLAEQDCEKFAFTIPAINNKEPATRFQWKVLPQGMNLSPITCQTFVGRALQPVREKFSDCYIIHY
IDDLCAAETKDKLIDCYTFLOAEVANAGLAIASDKIQTSTPFHYLGMQIENRKKPKQIEIRKDTLKTLDNFQKLLGDINWIRPTLGIPTYAMSNL
FSILRGSDSLNSQRLTPEATKEIKLVEEKIQSAQINRIDPLAPQLLIFATAHSPTGIIQNTDLVEWSFLPHSTVKFTFTLYLDQIATLIGQTRLR
ITKLCGNDPDKIVVPLTKEQVRQAFINSQAWQIGLANFVGLIDNHYPKTKIFQFLKLTWILPKITRREPLENALTFTDGSNGKAAATGPKERV
KTPYQSAQRDELVAIVITVLQDFDQPINIISDSAYVVQATRDVETALIKYSMDQNLQNLNLLQQTVRKRNFPPYITYIRAHTNLPGLTKANEQADL
LVSSALIKAEQELHALTHVNAAGLKNKFDVTWQAKDIVQHCTQCQVHLPTQEAQVNPRLCPNALWQMDVTHVPSFGRLSYVHVTVDTYSHFIWAT
CQTGESTSHVKKHLLSCFAVMGVPEKIKTDNGPGYCSKAFQKFLSQWKISHTTGIPYNSQQAIVERTNRTLKTQLVKQKEGDSKECTTPQMQLNL
ALYTLNLFNLNIYRNQTTTSAEQHLTGKKNPHEGKLIWWKDNKNKTWEIGKIVITWGRGFACVSPGENQLPVWLPTRHLKFYNEPIGDAKRASTEMVT
PVTWMDNPIEVYVNDVSVVPGPIDDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNLVEVPTVSPISRFTYHVMVSGMSLRPRVNYLQD
FSYQRLKFRPKGKPCPEIKPESKNTFVLWEECVANSVILXNNEFGTIIIDWAPRGQFYHNCSSGQTQSCPSAQVSPAVIDSLTESLDKHKHKKLQ
SFYPWEWGEKISTPRPKIVSPVSGPEHPELWRLTVASHHRIWWSGNQLETRDCKPFYITVDLNSSLTVPLQSCVKPPYMLVVGNIIVIKPDSQITTC
ENRLLTICIDSTFNWQHRILLVRAREGVWIPVSMRDPWEASPSVHILTEVLKGVNLRSKRIFITLIIVIMGLIAVTATAAVAGVALHSSVQSVNFVND
WQKNSTRLWNSQSSIDQKLANQINDLRQTVIWMGDRMLSLEHFRQLQCDWNTSDFCITPQIYNESEHWDMMVRRLHQRGREDNLTLDISKLEQIFE
ASKAHLNLVPGTEAIAGVADGLANLNPVTWVKTI GSTSIINLILVCLFCLLLVCRCTQQLRRDSHRRERAMMTMAVLSKRKGGNVGKSKRDQIVT
VSV

SEQ ID 28

MNPSEMQRKAPRRRRHRNRAPLTHKMNKMTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTTQTPESMLLAALMIVSMVSLPMPAGAA
AANYTYWAYVFPPLIRAVTWMDNPTEVYVNDVSVVPGPIDDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNLVEVPTVSPICRFTY

9/25

HMVSGMSLRPRVNYLQDFSYQSRSLKFRPKGKPCPKKEIPKESKNTEVLVWEECVANSVILQNNFEGTIIIDWAPRGQFYHNCSGGTQSCPSAQVSPAV
DSDLTESLDKHKHKKLQSFYPWEWEGKISTPRPKIVSPVSGPEHPQLWRLTVASHHRIWWSGNQTLERDRKPFYTTIDLNSSLTVPLQSCVKPPYM
LVVGNIVIKPDSQITCENCRLTLCIDSTFNWQHRIILVRAREGVWIPVSMRDPWEASPSVHILTEVLKGVNLNRSKRFIFTLIAVIMGLIAVTATAA
VAGVALHSSVQSVNFVNDWQKNSTRLWNSQSSIDQKLANQINDLRQTVIWMGDRMSLEHRFQLQCDWNTSDFCITPQIYNESEHHWDMVRRHLQGR
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KRKGGNVGKSKRDQIVTVSV

SEQ ID 29

AGTTCTACAATGAACCCATCAGAGATGCAAAGAAAAGCACCTCCGCGGAGACGGAGACATCGCAATCGAGCACCGTTGACTCACAAGATGAACAAAA
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ATATCTAGAGAACACAAAGGTGACACAAACCCAGAGAGTATGCTGCTGCAGCCTTGATGATTGATCAATGGTGTAAGTCTCCCTATGCCTGCA
GGA

SEQ ID 30

TCTGCAGGTGTACCCAACAGCTCCGAAGAGACAGCGACCATCGAGAACGGGCCATGA

SEQ ID 31

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSAGVPNSSEE
TATIENGP

SEQ ID 32

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKSAGVPNSSEETATIENGP

SEQ ID 33

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 34

MNSLEMQRKVWRWRHPNRLASLQVYPAAPKRQQPARMGHSDGGFVKKRGGYVRKREIRLSLCLCRKGRHKKLHFVLY

SEQ ID 35

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVILQVYPTAPKRQRPSTGHDDGGFVEK
KRGKCGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 36

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVYPTAPKRQRPSTGHDDGGFVEKKRGK
CGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 37

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVYPTAPKRQ
PSRTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 38

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 39

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 40

MEYKNRHLKFYNEPIGDAKKRASTMSAGVPNSSEETATIENGP

SEQ ID 41

MNPSEMQRKGPPQRCLQVYPTAPKRQRPSTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 42

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKSAGVPNSSEETATIENGP

SEQ ID 43

MNPSEMQRKAPPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSAGVPNSSEE
TATIENGP

SEQ ID 44

MVTPVTWMDNPIEVYVNDSEWVPGPTDDRCPAKPEEEGMMINISIVRYPPICLGRAPGCLMPAVQNCLOVYPTAPKRQRPSTGHDDGGFVEKKR
GKCGEKQERSDCYCVCVERSRRRLHFVLY

SEQ ID 45

MVTPVTWMDNPIEVYVNDSEWVPGPTDDRCPAKPEEEGMMINISIGLQVYPTAPKRQRPSTGHDDGGFVEKKRGKCGEKQERSDCYCVCVERS
RRLHFVMC

SEQ ID 46

MNSLEMQRKVWRWRHPNRLASLQVYPAAPKRQQPARMGHSDGGFVKKRGGYVRKREIRLSLCLCRKGRHKKLHFVLY

SEQ ID 47

MNSLEMQRKAPRRRRHRNRAPLTHKMNMVTSEEQMKLSSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSLPMPAGAA
AANYTYWAYVFPPLIRAVTWMNDNPTEVYVNDVSVWVPGPIDDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNLVEVPTVSPICRFTY
HMSAGVPSNSEETATIENGP

SEQ ID 48

MNPSEMQRKAPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTLQVYPTAPKRQRPSTGHDDDDGGFVEK
KRGKCGEKQERSDCYCVVERSRRRLHFVMY

SEQ ID 49

MNPSEMQRKAPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVYPTAPKRQRPSTGHDDDDGGFVEKKRGK
CGEKQERSDCYCVVERSRRRLHFVMY

SEQ ID 50

MNPSEMQRKAPRRRRHRNRAPLTHKMNMVTSEEQMKLPSTKKAEPPTWAQLKKLTQLATKYXLENTKVTQTPESMLLAALMIVSMVYPTAPKRQ
RPSRTGHDDDDGGFVEKKRGKCGEKQERSDCYCVVERSRRRLHFVMY

SEQ ID 51

GCCGCGGAATTCGACTCTAGGCCATTGCATACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCAATATGACCGCCATGTTGA
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ATGGGTGGAGTATTTACGGTAACCTGCCCACTTGGCAGTACATCAAGTGTATCATATGCCAAGTCCGCGCCCTATTGACGTCAATGACGGTAAATGG
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TCGTGGCCAGCCACGATAGCCGCGTGCCTGCTCTGCTGAGTTCATTAGGGCACCGGACAGGTGCGTCTTGACAAAAAGAACGGGCGCCCCGCGC
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TGCGGTGTGAATACCGCACAGATGCGTAAGGAGAAAATACCGCATCAGGCGCTCTTCCGCTTCTCGTCACTGACTCGCTGCGCTCGGTGCTCG
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CAAAGGCCAGGAACCGTAAAAGGCCGCTTGTGCGGTTTTTTCATAGGCTCCGCCCCCTGACGAGCATCACAAAATCGACGCTCAAGTCAGA
GGTGGCGAAACCGACAGGACTATAAGATACCAGCGTTTTCCCTTGAAGCTCCCTGTCGCTCTCTGTTCCGACCTGCGCTTACCGGATA

SEQ ID 53

GCCCGGAATTTCGACTCTAGGCCATTGCATACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCAATATGACCGCCATGTTGA
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TGTGCCGACAAGGCGGTGGCGGTAGGTTATGTCTGAAAATGAGCTCGGAGATTGGGCTCGCACCGCTGACGCGAGATGGAAGACTTAAGGCAGCG
GCAGAAGAAGATGCAGGAGCTGAGTTGTTGTATTCTGATAAGAGTCAAGGTTAACTCCCGTTCGCGGTGCTGTTAACGGTGGAGGCGAGTGTAGTCT
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SEQ ID 57

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SEQ ID 58

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SEQ ID 59

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SEQ ID 60

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SEQ ID 61

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SEQ ID 62

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SEQ ID 63

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SEQ ID 64

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SEQ ID 65

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CCTTGATGATTGTATCAATGGTGGTAAGTCTCCCTATGCCTGCAGGAGCAGCTGCAGCTAA

SEQ ID 66

ATGAACAAGAGCCGCAAGCGCCGCAACCGCGAGAGCCTGCTGGGCGCCGCCACCGTGGAGCCCCCAAGCCCATCCCCCTGACCTGGAAGACCGAGA
AGCCCGTGTGGGTGAACAGTGGCCCCTGCCCAAGCAGAAGCTGGAGGCCCTGCACCTGCTGGCCAACGAGCAGCTGGAGAAGGGCCACATCGAGCC
CAGCTTCAGCCCCGGAACAGCCCGTGTTCGTGATCCAGAAGAAGAGCGGCAAGTGGCGCATGCTGACCGACCTGCGCGCGGTGAACCGCGTGATC
CAGCCCCATGGGCCCCCTGCAGCCCGGCTGCCAGCCCCCGCATGATCCCAAGGACTGGCCCCGTGATCATCGACCTGAAGGACTGCTTCTTCA
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AACCTGTTTCAGCATCTGCGCGGCGACAGCGACCTGAACAGCAAGCGCATGCTGACCCCCGAGGCCACCAAGGAGATCAAGCTGGTGGAGGAGAAGA
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CACCGACCTGGTGGAGTGGAGCTTCTGCCCCACAGCACCGTGAAGACCTTACCCCTGTACCTGGACCAGATCGCCACCCTGATCGGCCAGACCCGC
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SEQ ID 67

MNPSEMQRKAPRRRRHRNRAPLTHKMNMVTSSEOMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVSAGVPNSSEE
TATIENGA

SEQ ID 68

MNPSEMQRKAPRRRRHRNRAPLTHKMNMVTSSEOMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTQTPESMLLAALMIVSMVYPTAPKRQR
PSRTHDDGDFVEKRGKCGEKQERSDCYCVVERSRRRLHFVLYA

SEQ ID 69

MGQTSKIKSKYASYLSFIKILLKRGVVKSTKNLIKLFQIIIEQFCPWFEQGTLDLKDWRIGKELKQAGRKGNIIPLTVWNDWAIKAALEPFQT
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SEQ ID 70

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SEQ ID 71

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TSQKIMTKMGIYIPGKGLGKNEDGIKIPVEAKINQEREGINPC

SEQ ID 72

MWATIVGKRAKGPASGPTTNWGPINSAICSSGFSGTTTTPTVPSVSGNKPVTTIQQLSPATSGSAAVDLCTIQAVSLLPGEPPQKTPTGVYGPLPKGT
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QGKQFEGVLDTGADVSIIALNQWPKNWPQKAVTGLVIGTASEVYQSTEILHCLGPDNQESTVQPMITSIPNLWGRDLLQWGAETMPAPSYSF
TSQKIMTKMGIYIPGKGLGKNEDGIKIPVEAKINQEREGINPCA

SEQ ID 73

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SEQ ID 76

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CAGGGTTTTCAAGGACAACAACCCCTACAGAAAATACCACCATTTCAGGGAGTCAGCAATTAACAACATCCAACAGCTGTCCCGGCCACAGCAGG
CAGCACCGCAGTAA

SEQ ID 77

ATGGGCCAGACCAGAGCAAGTACGCCAGCTACCTGAGCTTCATCAAGATCCTGCTGCGCCGCGGCGGCGTGCGCGCCAGCACCAGAGAACCTGATCA
CCCTGTTCCAGACCATCGAGCAGTTCTGCCCCTGGTTCCCGGAGCAGGGCACCCTGGACCTGAAGGACTGGGAGAAGATCGGCAAGGAGCTGAAGCA
GGCCAACCGCAGAGGGAAGATCATCCCCCTGACCGTGTGGAACGACTGGGCCATCATCAAGGCCACCCTGGAGCCCTCCAGACCGGCGAGGACATC
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ACGTGGCCGAGAGCGTGATGGCCAGAGCACCAGAACCTGGACTACAGCCAGCTGCAGGAGATCATCTACCCCGAGAGCAGCAAGCTGGGCGAGGG
CGGCCCCGAGAGCCTGGGCCCCAGCGAGCCCAAGCCCCGAGCCCCAGCACCCTCCCGTGGTGAGATGCCCGTGACCCCTGCAGCCCCAGACC
CAGGTGCGCCAGGCCAGACCCCCGCGAGAACCAGGTGGAGCGGACCGGTGAGCATCCCCGCCATGCCACCCAGATCCAGTACCCCCAGTACC
AGCCCGTGGAGAACAAGACCAGCCCCCTGGTGGTGTACAGTACCGCTGCCACCGAGCTGCAGTACCGCCCCCAGCGAGGTGAGTACCGCCC
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GCCCTTACCATGAAGATGCTGAAGGACATCAAGGAGGGCGTGAAGCAGTACGGCAGCAACAGCCCTACATCCGACCCCTGCTGGACAGCATCGCC
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CGGTGCAGGAGCAGGTGCGCAAGAACCAGGCCACCAAGCCACCGTGAACATCGACGCCGACAGCTGCTGGGCACCGGCCCACTGGAGCACCAT
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CCCGCAAGTGATCGTGGAGCTGATGGCTACGAGAACGCCAACCCCGAGTGCCAGAGCGCCATCAAGCCCTGAAGGGCAAGGTGCCCGCGCGCT
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GGCGGCCAGGTGCGCACCCTTCGGCAAGAAGTGCTACAACGCGGCCAGATCGGCCACCTGAAGCGCAGCTGCCCGCTGCTGAACAAGCAGAATCA
TCAACCAGGCCATCACCGCCAAGAACAAGAAGCCAGCGGCTGTGCCCAAGTGCGGCAAGGGCAAGCACTGGGCAACCAAGTGCACAGCAAGTT
CGACAAGGACGGCCAGCCCCCTGAGCGGCAACCGCAAGCGCGGCCAGCCCCAGGCCCCCCAGCAGACCGGCGCTTCCCCGTGACGTGTTCTGTCGCC
CAGGGCTTCCAGGGCCAGCAGCCCCCTGCAGAAGATCCCCCCCCTGAGGGCGTGAGCCAGCTGCAGCAGAGCAACAGCTGCCCGCCCCCAGCAGG
CCGCCCCCAGGCTTAA

SEQ ID 78

MGQTESKYASYLSFIKILLRRGGVRASTENLITLFTQIEQFCPWFEQGTLDLKDWEKIGKELKQANREGKIIPLTWVNDWAIKATLEPFQTGED
VSVSDAPKSCVTDCEEEAGTESQQGTESSHCKYVAESVMAQSTQNVDSYQLQEIIPYESSKLGEPPESLGPSEPKRSPSTPPPVVQMPVTLQPQT
QVRQAQTPRENQVERDRVSIPAMPTQIQYQYQPVENKTOPLVVYQYRLPTLQYRPPSEVQYRPAVCPVNSTAPYQQPTAMASNSPATQDAALY
POPPTVRLNPTASRSGGGALHAVIDEARKQGDLEAWRFLVILQLVQAGEETQVGAPARAETRCPEFTMKMLKDIKEGVKQYGSNSPYIRTLDSIA
HGNRLTPYDWEILAKSSLSQYLQFKTWWIDGVQEQVRKNQATKPTVNIADQLLGTGPNWSTINQQSVMQNEAIEQVRAICLAWGKIQDPGTAF
PINSIRQGSKEPYPDFVARLQDAAQKSIITDDNARKVIVELMAYENANPEQSAIKPLKGVPAAGVDVITEYVKACDGIIGGAMHKAMLMQAAMRGLTL
GGQVRTFGKKCYNCQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLCPKCGKGKHWANQCHSKFDKDGQPLSGNRKRQGPQAPQQTGAFFVQLFVP
QGFQGGQPLQKIPPLQGVSQLQSSNSCPAPQQAAPQ

SEQ ID 79

MGQTESKYASYLSFIKILLRRGGVRASTENLITLFTQIEQFCPWFEQGTLDLKDWEKIGKELKQANREGKIIPLTWVNDWAIKATLEPFQTGED
VSVSDAPKSCVTDCEEEAGTESQQGTESSHCKYVAESVMAQSTQNVDSYQLQEIIPYESSKLGEPPESLGPSEPKRSPSTPPPVVQMPVTLQPQT
QVRQAQTPRENQVERDRVSIPAMPTQIQYQYQPVENKTOPLVVYQYRLPTLQYRPPSEVQYRPAVCPVNSTAPYQQPTAMASNSPATQDAALY
POPPTVRLNPTASRSGGGALHAVIDEARKQGDLEAWRFLVILQLVQAGEETQVGAPARAETRCPEFTMKMLKDIKEGVKQYGSNSPYIRTLDSIA
HGNRLTPYDWEILAKSSLSQYLQFKTWWIDGVQEQVRKNQATKPTVNIADQLLGTGPNWSTINQQSVMQNEAIEQVRAICLAWGKIQDPGTAF
PINSIRQGSKEPYPDFVARLQDAAQKSIITDDNARKVIVELMAYENANPEQSAIKPLKGVPAAGVDVITEYVKACDGIIGGAMHKAMLMQAAMRGLTL
GGQVRTFGKKCYNCQIGHLKRSCPVLNKQNIINQAITAKNKKPSGLCPKCGKGKHWANQCHSKFDKDGQPLSGNRKRQGPQAPQQTGAFFVQLFVP
QGFQGGQPLQKIPPLQGVSQLQSSNSCPAPQQAAPQ

SEQ ID 80

GCCGCGGAATTCGACTCTAGGCCATTGCATACGTTGTATCTATATCATAATATGTACATTTATATTGGCTCATGTCCAATATGACCGCCATGTTGA
CATTGATTATTGACTAGTTATTAATAGTAATCAATTACGGGGTCAATTAGTTTCATAGCCCATATATGGAGTTCGCGTTACATAACTTACGGTAAATG
GCCCCCTGGCTGACCGCCCAACGACCCCCGCCATTGACGTCAATAATGACGTATGTTCCCATAGTAACGCCAATAGGGACTTTCCATTGACGTCA
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CCCGCTGGCATTATGCCAGTACATGACCTTACGGGACTTTCCTACTTGGCAGTACATCTACGTATTAGTCATCGTATTACCATGGTGATGCGGT
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GGTGATTGGAACGCGGATTCCCGGTGCCAAGAGTGACGTAGTACCGCTATAGACTCTATAGGCACACCCCTTTGGCTCTTATGCATGCTATACT
GTTTTGGCTTGGGGCCTATACACCCCGCTTCCTTATGCTATAGGTGATGGTATAGCTTAGCCTATAGGTGTGGGTATTGACCATATTGACCAC
TCCCTATTGGTGACGATACTTTCCATTACTAATCCATAACATGGCTCTTTGCCACAATATCTCTATTGGCTATATGCCAATCTCTGTCTCTCAG
AGACTGACACGGACTCTGTATTTTACAGGATGGGGTCCCATTTATTATTACAAATTCACATATACAACAACCGCGTCCCCGTGCCCGCAGTTT
TATTAACATAGCGTGGATCTCCACGCAATCTCGGTACGTGTTCCGGACATGGGCTCTTCTCCGTAGCGCGGAGCTTCCACATCCGAGCCCT
GTCCTCATGCTCCAGCGCTCATGGTCTCGCTCGGACGCTCCTTGCTCTACAGTGGAGGCCAGACTTAGGCACAGCACATGCCACACCACCCAG

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GTGTATGGGTACCTGGCCCCATAGATGATCGCTGCCCTGCCAAACCTGAGGAAGAAGGGATGATGATAAATATTTCCATTGGGTATCATTATCCTCC
TATTTGCCTAGGGAGAGACCAGGATGTTAATGCCTGCAGTCCAAAATTGGTTGGTAGAAGTACCTACTGTCAGTCCCATCTGTAGATTCACTTAT
CACATGGTAAGCGGGATGTCACCTCAGGCCACGGGTAATATTATTACAAGACTTTTCTTATCAAAGATCATTAAATTTAGACCTAAAGGGAACCTT
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CCTGTTTGTCTGTTGTTAGTCTGCAGGTGTACCAACAGCTCCGAAGAGACAGCGACCATCGAGAACGGGCCATGATGACGATGGCGGTTTTGTGCG
AAAGAAAAGGGGAAATGTGGGAAAAGCAAGAGAGATCAGATTGTTACTGTGTCTGTGGCCTAA

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ATGAACCCCGAGAGATGCAGCGCAAGGCCCCCCCGCCGCCGCCGCCACCGCAACCGCGCCCCCTGACCCACAAGATGAACAAGATGGTGACCA
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GAACACCAAGGTGACCCAGACCCCCGAGAGCATGCTGCTGGCCGCCCTGATGATCGTGAGCATGGTGGTGAGCCTGCCCCATGCCCGCCGCGCCGCC
GCCGCCAACTACACCTACTGGGCCCTACGTGCCCTTCCCCCCCCGTATCCGCGCCGTGACCTGGATGGACAACCCACCGAGGTGTACGTGAACGACA
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CATCTGCCCTGGCCCGCCCGCCGGCTGCTGATGCCCGCCGTGCAGAACTGGCTGGTGAGGAGTGGCCACCGTGAGCCCCATCTGCCGCTTACCTAC
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CGGCACCATCATGACTGGGCCCCCCGCGGCCAGTTCTACCACTGAGCGGCCAGACCCAGAGCTGCCCGAGCGCCAGGTGAGCCCCCGCGTG
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AGCACCGCATCTGCTGCTGCTGCCGCCCGCGAGGGCGTGTGGATCCCCGTGAGCATGGACCGCCCTGGGAGGCCAGCCCCAGCGTGCACATCTGAC
CGAGGTGCTGAAGGGCGTGCTGAACCGCAGCAAGCGCTTCATCTTACCCGTGATCGCCGTGATCATGGGCTGATCGCCGTGACCGCCACCGCGCC
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TCGACCAGAAGCTGGCCAACAGATCAACGACCTGCGCCAGACCGTGATCTGGATGGCGACCGCCTGATGAGCCTGGAGCACCCTTCCAGCTGCA
GTGGCAGTGAACACACGCGACTTCTGCATCACCCCCAGATCTACAACGAGAGCGAGCACCCTGGGACATGGTGCGCCGCCACCTGCAGGGCCGC
GAGGACAACCTGACCTGGACATCAGCAAGCTGAAGGAGCAGATCTTCGAGGCCAGCAAGGCCACCTGAACCTGGTGCCCGGCCAGCGGCCATCG
CCGCGTGGCCGACGGCTGGCCAACCTGAACCCGTGACCTGGGTGAAGACCATCGGCAGCACCACCATCATCAACCTGATCCTGATCTGCTGTG
CCTGTTCTGCTGCTGCTGGTGTGCCGCTGCACCCAGCAGCTGCCCGCGACAGCGACCCAGCGAGCGCCATGATGACCATGGCCGTGCTGAGC
AAGCGCAAGGGCGCAACGTGGGCAAGAGCAAGCGGACCCAGATCGTGACCGTGAGCGTGGCCTAA

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MNPSEMQRKAPRRRRHRNRAPLTHKMNMVTSSEQMKLPSTKKAEPPTWAQLKKLTQLATKYLENTKVTPQTPESMLLAALMIVSMVSLPMPAGAA
AANYTYWAYVFPPLIRAVTWMDNPTEVYVNDVSVWVPGPIDRCPAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNLVEVPTVSPICRFTY
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DSDLTESLDKHKHKLQSFYPWEWGEKISTPRPKIVSPVSGPEHPELWRLTVASHHIRIWSGNQTLTRDRKPFYITDLNSSLTVPLQSCVKKPPYM
LVVGNIVIKPDSQITCENCRLLTIDSTFNVQHRILLVRAREGVWIPVSMRDPWEASPSVHILTEVLKGVNRSKRIFITLIIVIMGLIAVTATATAA
VAGVALHSSVQSVNFVNDWQKNSTRLWNSQSSIDQKLANQINDLRQTVIWMGDRMLSLEHRFQLQCDWNTSDFCITPQIYNESEHHWDMVRRHLQGR
EDNLTDISKLEQIFEASKAHNLVPGTEAIGVADGLANLNPVTWVKITGSTTIINLILVCLFCLLLVCRCTQQLRRSDHRRERAMTMMAVLS
KRKGGNVGKSKRDQIVTVSVA